p 0.001)], re-infarction [OR 6.26 (1.91 – 20.53, p 0.002)], development of significant arrhythmias [OR 4.12 (1.45 – 11.7, p 0.008)], and development of any adverse cardiovascular outcome [OR 6.46 (1.40 – 29.8, p 0.017)].
Conclusions: Among patients with ACS, an elevated NLR (>6.5) taken within 24 hours of presentation is a useful marker to predict in-hospital mortality, development or worsening or CHF, and development of shock, re-infarction, and arrhythmias.

GW25-e5319

Effect of Smoking on Clinical Characteristics and Prognosis of patients with ACS

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Objectives: To do a retrospective analysis of passive smoking on clinical characteristics and prognosis of patients with Acute Coronary Syndrome.
Methods: Selected 305 patients with ACS, according to the circumstance of not smoking or passive smoking or active smoking, these patients were divided into four groups , including No smoking group (group A) and passive smoking group (group B), active smoking group (group C).All patients in hospitalization have been examined hs–CRP, Cystatin C, carotid intima - film thickness (IMT) and ultrasonic measurement of brachial artery flow mediated vasodilation (FMD) function, the evaluation of coronary artery lesions by Gensini integral method and early risk assessment (GRACE integral) ; And observe the prognosis of them in 1st year.
Results: 1. The examination result of Hs - CRP, IMT, GRACE integral in group B and in group c were higher than group A, that is statistically significant difference ($P < 0.05$), while these index in group B and group C have no significant statistical difference ($P > 0.05$). 2. The examination result of Cystatin C, Gensini score in group C is higher than that in group B and group A, that of group B was higher than that of group A, the above differences are statistically significant ($P < 0.05$). 3. Ultrasonic measurement of brachial artery flow mediated vasodilation (FMD) function in the comparison among group B and group C were lower than group A, that of group B was lower than group C, the differences were statistically significant ($P < 0.05$). 4. By the Kaplan - Meier method, to draw the curve of three groups of the incidence of major cardiovascular events, with the Log - rank test methods for significance test, the results show that the incidence of major cardiovascular events of group B and group C was obviously higher than that of group A ($\chi^2 = 7.215$, $P = 0.027$), and obvious difference was not found between group B and group C ($\chi^2 = 0.073$, $P = 0.778$).
Conclusions: Passive smoking in patients with ACS, just as active smoking, has the same blood lipid metabolic disorder, the same atherosclerosis and coronary artery lesion severity, and has the equal early risk level and the prognosis of cardiovascular events.

GW25-e0272

Characteristics of adhesion molecule-related gene mRNA expression in patients with AMI and SAP

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Objectives: To investigate the gene expression differences of adhesion molecule-related mRNAs among AMI group, SAP group and control group and explore their significance in coronary artery disease.
Methods: Whole Human Genome Oligo Microarrays were applied to assess the differential expression characteristics of adhesion molecule-related mRNAs in patients with AMI (n=20), SAP (N=20) and controls (n=20). Statistical analysis was performed.
Results: (a) The expression of the majority of integrin mRNAs was significantly up-regulated ($P<0.01$) in AMI group compared with SAP group,and that in the SAP group was higher than the controls. (b) The expression of mRNAs related to L-selectin, P-selectin and P-selectin glycoprotein ligand was significantly up-regulated ($P<0.05$) in AMI group compared with SAP group, and that in the SAP group was higher than the controls. (c) The expression of the majority of mRNAs related to the immunoglobulin superfamily was significantly up-regulated ($P<0.01$) in AMI group compared with SAP group,and that in the SAP group was higher than the controls. (d) The expression of mRNAs related to classic cadherins had no significant differences ($P>0.05$) among the 3 groups.
Conclusions: The expression of adhesion molecule-related gene mRNAs was significantly up-regulated by stages in the process of coronary artery disease, suggesting that the stage of SAP is a process of the adhesion and migration of leukocytes on endothelial cells surface reinforced obviously and the stage of AMI is a process of the adhesion function among platelet, leukocyte and endothelial cell further enhanced.

GW25-e0724

Comparison of Coronary Angiograms in Coronary Artery Disease Patients With and Without Type 2 Diabetes

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Objectives: This study aims to compare the extent and severity of coronary artery lesion in angiograms of Coronary Artery Disease (CAD) patients with and without type 2 diabetes.
Methods: In this retrospective cross sectional study, we assigned 170 CAD patients who underwent coronary angiographic examination at Cath Laboratory, Abdul Wahab Sjahranie Hospital Samarinda. The period of study was between January 2013 and March 2014. From 170 CAD patients, 42.4% (72 patients) had type 2 diabetes as was defined by American Diabetes Association (ADA) guidelines. Coronary angiography was performed with the Standard Judkins Techniques. Significant stenosis was defined as a reduction of at least 50% in the coronary artery. Multivessel disease was defined as the involvement of any three or more of the following four arteries: the left main artery, the left descending artery, the left circumflex artery and the right coronary artery. Multilesion disease was defined as three or more lesions in a single vessel, whereas an extensive lesion was defined as a stenosis of more than 10 mm in length. The coronary lesions of patients with and without type 2 diabetes were compared. Differences between groups were analyzed by Chi-Square Test.
Results: The coronary angiograms were analyzed between 72 diabetic patients and 98 nondiabetic patients with CAD. There was a significant difference of multivessel (77.8% versus 22.4%, $P<0.01$), multilesion (19.4% versus 3.1%, $P<0.01$), and extensive lesions (37.5% versus 6.1%, $P<0.01$) in diabetic patients compared to nondiabetics.
Conclusions: In Coronary Artery Disease (CAD) patients, type 2 diabetes cause more significant adverse effect on the coronary arteries. We found there were more multivessel, multilesion, and extensive lesions in coronary arteries of diabetic patients compared to nondiabetics.

GW25-e1568

Acute myocardial infarction complicated with acute pancreatitis: report of 10 cases

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Objectives: To report 10 rare cases of acute myocardial infarction complicated with acute pancreatitis.
Methods: A chart review was conducted on patients diagnosed as both acute myocardial infarction and acute pancreatitis from 2003-2013 at the first affiliated hospital of Sun Yat-sen University. A cohort of these patients was identified as having acute myocardial infarction and acute pancreatitis during on hospitalization. Cases without significant elevated serum enzyme for either disease were excluded. Each case was evaluated for age, gender, chest pain, abdominal symptom, ECG, cTnT, CK-MB, serum amylase and lipase, disease progression and prognosis.
Results: Ten cases were identified. The median age was 72.5 years (median, 72.5 years; range, 56–86 years). There were 7 women and 3 men. Chest pain was the initial symptom for 8 patients, who were initially diagnosed as acute myocardial infarction. The other two patients were first diagnosed as acute pancreatitis with abdominal pain. During the whole course of disease, 6 patients had both chest pain and abdominal pain, 2 patients only had chest pain and the other 2 patients only had abdominal pain. Significant change of ECG was found in all patients. 5 of them were identified as ST elevated myocardial infarction, and the rest were identified as non ST elevated myocardial infarction. Elevated serum cTnT (mean, 3.937 ±3.32 ng/ml), CK-MB (mean, 73.03±89.51 ng/ml), amylase (mean, 811.3±566.84 U/L) and lipase (mean, 1628.14±1950.55 U/L) were found in all patients. Ultrasonic cardiogram was performed in 6 patients and 4 of them were indicated with regional wall motion abnormality. Abdominal computed tomography was performed in 3 patients and 2 of them were indicated with pancreatic edema. Coronary angiography was performed in 2 patients and both were indicated with triple vessel lesions. Multiple organ dysfunctions arose in 6 patients, all of them suffered from renal dysfunction and 2 had additional gastrointestinal bleeding. The outcome was poor, and 7 patients died during hospitalization.
Conclusions: Acute myocardial infarction complicated with acute pancreatitis is a rare clinical entity. The prognosis is very poor, and multiple organ dysfunctions are common during the course. It should be considered when abdominal and chest pain coexists in patients with either myocardial infarction or acute pancreatitis. Serum myocardial enzyme and pancreatic enzyme should be tested to confirm the diagnosis.

GW25-e2139

Serial changes of mean platelet volume in relation to Killip Class in patients with acute myocardial infarction and primary percutaneous coronary intervention

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Objectives: Mean platelet volume (MPV) is related to the reactivity of platelets, and among survivors of acute myocardial infarction (MI), greater MPV is known to be associated with impaired reperfusion and higher mortality. The objective of the study is to investigate the dynamic changes of MPV and the relation between MPV and

cardiac function in patients with acute MI and received primary percutaneous coronary intervention.
Methods: This retrospective cohort study included patients presented during January 2008 to March 2011 to Peking University Third Hospital with ST-segment elevation MI. All patients received successful primary PPCI.
Results: MPV was measured serially from admission to day 7 after MI. In 375 patients, MPV reached its peak value (10.16±1.05 fL) at the admission, and then reduced by 16% within the 24 hours. Patients with poorer ventricular function, estimated by high Killip Class (≥2, n=96), had higher MPV values at all-time points studied. By logistic regression model and after adjusting for related confounders, high MPV remained as an independent predictor of Killip Class score≥2 [odds ratio (OR) = 1.873, 95% confidence interval (CI) 1.373-2.673; p = 0.001].
Conclusions: MPV undergoes rapid and dynamic changes during the acute phase of MI, and was higher in patients with high Killip Class, suggesting a predictive value of MPV in ventricular dysfunction and clinical outcome of acute phase of MI.

GW25-e2192

Transfer independently influences total ischemic time in primary percutaneous coronary intervention

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Objectives: To search independent influencing factors of total ischemic time in primary percutaneous coronary intervention.
Methods: ST segment elevation myocardial infarction patients who received primary percutaneous coronary intervention between January 2009 and December 2012 in Nanjing Drum-tower hospital were retrospectively studied. Total ischemic time was estimated as the sum of pain onset to door time and door to balloon time. Patients were divided into four groups according to the quartiles of total ischemic time. Patients' demographic information, clinical information, total ischemic time and its components were compared among the four groups. Multi-variable linear regression analysis was employed to reveal the independent infuencing factors.
Results: There was difference in senior education level, medical insurance status, transferring from another hospital, atypical chest pain, pain onset to door time, door to balloon time and total ischemic time among the four groups. Transferring from another hospital was found to be the only independent influencing factor of total ischemic time. Besides, pain onset to door time contributed more than door to balloon time to the prolongation of total ischemic time in this study.
Conclusions: Transferring from another hospital independently impacts total ischemic time, and it increases total ischemic time maily by prolonging pain onset to door time.

GW25-e4107

The Effect of Rate of Acute Myocardial Infarction Dissolved Thrombosis in Dongzhimen Hospital According To Health Education In Haiyuncang Community

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Objectives: To study the effect of rate of acute Myocardial Infarction Dissolved Thrombosis in Dongzhimen Hospital according to Health Education in Haiyuncang Community.
Methods: By reviewing the past three years of Dongzhimen Hospital patients admitted with acute myocardial infarction rate and the rate of thrombolytic therapy. Get patients' Statistics of time from the onset to the administration into CCU. After the health education of the community patient for one year to improve the degree of emphasis on community-related knowledge for chest pain and related symptoms of AMI to train community physicians with acute myocardial infarction thrombolytic therapy time awareness and referral consciousness, intermediate links as short as possible, get statistics of time from the onset of illness to the CCU and hospitalization rate of AMI patients within one year and the rate of thrombolytic therapy. In the end we compare and analyze the data with the previous three years' statistically.
Results: The time of patients from the onset to the entry to CCU was significantly shorter after the community health education of the patient for one year. The rate of thrombolytic therapy for acute myocardial infarction patients has improved significantly. Thrombolytic therapy rate compared with the average of the previous three years are statistically significant $X^2 = 2.3634$ $p < 0.05$.
Conclusions: Health Education in Haiyuncang Community to improve the degree of emphasis on community-related knowledge for chest pain and related symptoms of AMI can improve rate of Acute Myocardial Infarction Dissolved Thrombosis in Dongzhimen Hospital has important significance in saving patients dying of myocardial.

GW25-e4197

Relativity Analysis on Cystatin C and vulnerable plaque of coronary artery disease

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Objectives: To study the relationship between Cys C and vulnerable plaque of coronary artery disease.
Methods: 360 patients accepted coronary angiography were consecutive enrolled our research, including 60 cases without any coronary stenosis as control guoup. The coronary artery lesions was divided into typeI, II and III plaque group by the morphology of atherosclerotic plaque. Serum Cys C, hs-CRP and lipid were measured in 60 control subjects, 85 typeIplaque, 139 type II plaque and 76 type III plaque. Then we compare Cys C, hs-CRP and lipid level of four groups using One-Way ANOVA.
Results: Cys C , low density lipoprotein cholesterol (LDL-C) and hs-CRP were significantly higher in the patients with type II than those in control, typeIand III group ($P<0.05$), Based on multiple stepwise logistic regression analysis, Cys C, hs-CRP, LDL-C were independent risk factors of vulnerable plaque, respectively, the relative ratio (RR) were 2.759, 1.453, 1.708 in type II plaque group. The level of Cys C was correlated positively with hs-CRP in type II group ($r=0.635$, $P<0.01$), but there are not same correlationship between Cr and hs-CRP.
Conclusions: Elevated levels of serum Cys C may have a correlation with the occurrence of coronary vulnerable plaques, which may lead to changes in plaque stability through direct effects and inflammatory factors.

GW25-e5265

The Improvement of Ticagrelor for Clopidogrel Resistance on Patients with Acute Coronary Syndrome

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Objectives: Aim to investigate whether ticagrelor is associated with significant improved platelet activity after PCI in patients with clopidogrel resistance suffering with acute coronary syndrome and to evaluate its efficacy and safety.
Methods: Consecutive patients admitted to Department of Cardiology in the General Hospital of Armed Police were enrolled between December 2012 and January 2014.They were patients with a diagonosis of NSTE-ACS who were scheduled for PCI.Blood samples were obtained by venipuncture of the antecubital vein respectively between 6-12h after the clopidogrel 600mg.The VASP phosphorylation analysis of blood collection was performed with BD FACSCalibur flow cytometer. According to the definition of High Platelet Reactivity (PRI≥50%) accepted internationally which was correlated well with clinical prognosis of patients undergoing PCI, confirmed by several studies and ROC curve analysis, 76 patients with high platelet reactivity (PRI≥50%) were included, and were randomized to clopidogrel 75mg qd or clopidogrel 150mg qd or ticagrelor 90mg bid.The VASP assay was performed 2days, 7days and 28days after PCI respectively. Meanwhile, the MACE, bleeding events and adverse reactions were recorded.All patients received aspirin 100mg qd.
Results: (1) 365 consecutive patients admitted for PCI were prospectively screened for inclusion in this study. A total of 289 patients were not included.Therefore, 76 patients were included and randomized to clopidogrel 75mg qd group (n=26) or clopidogrel 150mg qd group (n=25) or ticagrelor 90mg bid group (n=25). 2 patients in clopidogrel 75mg qd group, 3 patients in clopidogrel 150mg qd group and 2 patients ticagrelor 90mg bid group were drop-outs, which refused to test the platelet function. Ultimately, there were 24, 22 and 23 patients respectively finished the whole study. (2) After 28 days antiplatelet treatment, the PRI decreased in three groups, meanwhile, it was significantly lower in patients receiving ticagrelor 90mg bid group compared with other two groups.The PRI of clopidogrel 75mg qd group, clopidogrel 150mg qd group, ticagrelor 90mg bid group were 52.1%±11.2, 45.5%±9.7, 22.4%±9.4, respectively ($P<0.001$).After pairwise comparison they all have statistic difference ($P=0.03$, $P<0.001$, $P<0.001$). (3) After 28 days antiplatelet treatment, the compliance rate of PRI of clopidogrel 75mg qd group, clopidogrel 150mg qd group, ticagrelor 90mg bid group were 45.8%, 68.2%, 100%, respectively ($P<0.001$).After pairwise comparison clopidogrel 75mg qd group and clopidogrel 150mg qd group have no statistic difference ($P=0.1>0.0125$).Ticagrelor 90mg bid group has statistic difference compared with other two groups ($P<0.001$, $P=0.003$). (4) During 28 days follow-up, 2 cardiovascular adverse events and 2 minor bleeding in clopidogrel 75mg qd group;1 cardiovascular adverse events and 2 minor bleeding in clopidogrel 150mg qd group; 4 minor bleeding in ticagrelor 90mg bid group, not resulting in a statistically difference (MACE:$P=0.4$;minor bleeding:$P=0.6$), with no major bleedings recorded.
Conclusions: (1) Ticagrelor 90mg bid and clopidogrel 150mg qd can obviously suppress platelet reactivity by VASP phosphorylation analysis compared with clopidogrel 75mg qd group, and ticagrelor 90mg bid was more significantiy. (2) There is a tendency that ticagrelor 90mg bid and clopidogrel 150mg qd can reduce MACE in ACS patients with clopidogrel resistance. (3) Ticagrelor 90mg bid and clopidogrel 150mg qd did not increase bleeding events.